DOCUMENT RESUME

ED 373 629 HE 027 615

AUTHOR Allen, Dave
TITLE The Iliad and the Odyssey of Student Attrition. AIR 1994 Annual Forum Paper.
PUB DATE 30 May 94
NOTE 41p.; Paper presented at the Annual Forum of the Association for Institutional Research (34th, New Orleans, LA, May 29-June 1 1994).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; Academic Persistence; *College Freshmen; *Dropouts; Environmental Influences; Family Attitudes; Higher Education; Models; *School Holding Power; Social Influences; Student Motivation; *Transfer Students
IDENTIFIERS *AIR Forum; *Angelo State University TX

ABSTRACT

This paper uses the analogies of the Iliad and the Odyssey to examine different types of college student withdrawal behavior in the context of a study an integrated model of student retention at Angelo State University (ASU) in Texas. The study selected 824 first time freshmen of whom 343 responded to the mailed ASU Freshman Experiences survey. Persistence behavior data were collected from institutional transcripts. Exploratory factor analysis was applied to the data and interpreted in terms of Tinto's Student Integration Model and Bean's Student Attrition Model. Results found three characteristics distinguished persisters from dropouts and from transfer students: (1) greater encouragement from family, (2) better academic performance, and (3) greater commitment to the institution. Encouragement from family was the most significant of these factors. Neither social integration, academic integration, college choice, goal commitment, degree aspirations, nor attitudes toward financial aid programs explained decisions to transfer to other institutions. Results showing the importance of family encouragement in the study results suggest that such interventions such as parent orientation programs may be effective in reducing dropouts. Appendices include the survey instrument, four figures, and four tables. Contains 29 references. (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 373 629

The Iliad and the Odyssey of Student Attrition

by

Dave Allen, Ph.D.
Director of Institutional Planning, Assessment and Research

Angelo State University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

AIR

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper Presented at the
Association for Institutional Research Conference
New Orleans, LA

May 30, 1994

BEST COPY AVAILABLE

for Management Research, Policy Analysis, and Planning

This paper was presented at the Thirty-Fourth Annual Forum of the Association for Institutional Research held at The New Orleans Marriott, New Orleans, Louisiana, May 29, 1994 - June 1, 1994. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Jean Endo
Editor
Forum Publications

16

Table of Contents

ABSTRACT 1

INTRODUCTION AND LITERATURE REVIEW 1
Brief Review of the Literature 2
Student Integration Model 3
Student Attrition Model 3
Integrated Retention Model 3

PURPOSE 4

RESEARCH DESIGN 4
Subjects and Survey Process 4
Measurement and Variables 5
Intent to Persist 6
Persistence Behavior 6

DATA ANALYSIS 7
Exploratory Factor Analysis 7
Logistic Regression 8

RESULTS 9
Dropout vs. Persister Model 9
Transfer vs. Persister Model 10

CONCLUSIONS AND IMPLICATIONS 10

LIMITATIONS 12

REFERENCES 14

APPENDICES 18

Association for Institutional Research 1994 Paper

The Iliad and the Odyssey of Student Attrition

Dave Allen

ABSTRACT

This research replicates a previous study on different types of withdrawal behavior (Mallette and Cabrera, 1991) within the context of an integrated model of student retention (Cabrera et al, 1992). Students were classified as either persisters, transfers or dropouts. Results provided little support for Tinto's proposition of differentiating between different types of voluntary withdrawal behavior. Measures of encouragement from family and friends, academic performance, and institutional commitment discriminated between persisters and dropouts as well as between persisters and transfers. Social integration was significantly higher for persisters than dropouts but demonstrated no difference between persisters and transfers.

INTRODUCTION AND LITERATURE REVIEW

What has the Iliad and the Odyssey, a set of stories written nearly 2,500 years ago in an ancient language that no one reads, got to do with student attrition? Perhaps a look to our past holds the promise of enlarging our views of the present. And when it comes to student persistence, views as to why students dropout of college remain a mystery.

The Iliad and the Odyssey are more than adventure stories of a king (Agamemnon) who goes to war (Trojan War) to rescue his kidnapped sister-in-law (Helen). These books represent more than the trials and tribulations of the faithful woman (Penelope) who awaits the return of her versatile, brave husband (Odysseus).

The Iliad and the Odyssey are symbolic of the nature of change. These works represent our transition from stability to instability and back to stability. In this sense, they may be especially pertinent to a college age group that is transitioning into what Levinson (1978) calls the early adulthood era of the life cycle. This era is distinguished by its fullness of energy, capability and potential, as well as external pressure. Personal drives and societal requirements are intensely intermeshed during this time. Traditional college students (ages 17 to 22) are in the novice phase of this era and are creating a basis for adult life without being fully within it. Part of their challenge is pressure to stay in or leave college.

Those who withdraw from college are akin to Odysseus, king of Ithaca, who sailed with his army to help defeat the Trojans. Ten years later, when the dust had settled and the war had been won, Odysseus still had not returned home. Penelope, his ever-faithful wife stands true to her husband's memory for 20 years during his absence. With the help of his son, Telemachus, and the goddess, Athene, Odysseus finds his way back home, squelches a rebellion and re-establishes himself as king.

The analogy proposed here is that Ithaca represents higher education, Odysseus is the college dropout, Penelope represents faithful programs and services that work, and Telemachus is symbolic of the institutional researcher who tracks students. It is fitting then that a survey focused on understanding student departure be conducted.

Brief Review of the Literature

Two major theories provide a comprehensive theoretical framework on college departure decisions: Tinto's (1975, 1987) Student Integration Model (SIM) and Bean's (1985) Student Attrition Model (SAM).

Student Integration Model

Tinto's SIM theory hypothesized that persistence is a function of the match between an individual's motivation and academic ability and the institution's academic and social characteristics. In essence, the match between an individual's characteristics and those of the institution shape two underlying individual commitments: a commitment to completing college (goal commitment) and a commitment to his or her respective institution (institutional commitment). Persistence is the result of strength of goal commitment and/or level of institutional commitment. The SIM theory de-emphasizes the role of external factors in shaping perceptions, commitments, and preferences.

Student Attrition Model

Bean's SAM theory is based upon process models of organizational turnover and stresses the importance of behavioral intentions. Such intentions are shaped by attitudes toward student's experiences with the different components of an institution (that is, institutional quality, courses, and friends). Attitudes and decisions are assumed to be greatly affected by factors external to the institution. Bean has found that non-intellective factors play a major role in dropout decisions and that family approval exerts both direct and indirect effects on persistence.

Integrated Retention Model (IRM)

Cabrera et al (1992) merged both the SAM and SIM into one Integrated Retention Model (IRM). They found that the convergent and discriminant validity between these two theories provides a more comprehensive understanding of the persistence process than either theory alone. They concluded that a model integrating

the leading factors in each theory may contribute to explaining the persistence process better. Figure 1 describes the IRM.

PURPOSE

The purpose of this paper is to empirically examine whether the determinants to re-enroll at the same institution (institutional persistence), dropout of the higher education system (dropout), or transfer to another institution (transfer persister) are different when examined within the context of an integrated model of student retention.

RESEARCH DESIGN

Subjects and Survey Process

Data were collected during the 1992-93 and 1993-94 academic years. The student population was drawn from the Fall 1992 entering class at a medium sized regional institution in the southwest. Only first-time (i.e., no previous college record), full-time (12 SCH or more) freshmen who were registered as of the 12th class day in September 1992, were United States citizens under 20 years of age, and not married were selected. These selection criteria were consistent with how the research literature defines "traditional college students." In addition, 51 students were eliminated from the study because they were forced withdrawals. That is, they were academically suspended because their cumulative grade point average in college-level course work was less than 1.00. Voluntary withdrawals are students not in jeopardy of academic suspension and who withdraw officially from the university. Evidence suggests that forced withdrawals are significantly different from voluntary withdrawals (e.g., Cope and Hannah, 1975).

The number of freshmen meeting all of these selection criteria was 824 of the original freshman class of 1,884.

In June 1993 a Survey of ASU Freshmen Experiences (SAFE) was sent to students in this study. An initial mailing and a follow-up yielded 343 surveys for a 42% response rate. Comparing respondents to nonrespondents, results indicated that there were no differences across race (x^2 = 2.30, df = 4, p = .51), financial aid awards ($1,324.00 versus $1,250.00), and SAT or ACT scores (919.14 versus 919.10; 23.19 versus 22.0). The study sample did, however, overrepresent the proportion of females (67.2% versus 51.2%), high school percentile ranking (75.93 versus 73.31), and freshmen cumulative GPA (2.64 versus 2.25).

As to actual persistence behavior, institutional transcripts were consulted after the 12th class day in the fall of 1993. Figure 2 shows that survey respondents largely overrepresented the proportion of students who returned after one year (78.4% versus 57.8%). It should be noted that the overall retention rate for the study population (65.8%) mirrored the university wide first-time, full-time fall 1992 freshmen one year retention rate (63.0%). Of the 343 survey respondents, 78.4% (N = 269) were classified as institutional persisters, 13.1% (N = 45) were classified as transfers, and 8.5% (N = 29) were classified as dropouts (See Figure 3).

Measurement and Variables

A Survey of ASU Freshmen Experiences (SAFE) was designed and developed based on validated retention models in the literature. Items were derived from the Student Integration Model (Tinto, 1975, 1987), the Student Attrition Model (Bean, 1985), the Ability to Pay Model (Cabrera et al, 1990), Nora's model addressing the role of friends and parental influence on the persistence process (Nora, 1987; Nora, Attinasi,

and Matonak, 1990), Pascarella and associates' (Pascarella and Chapman, 1983; Pascarella, Duby, and Iverson, 1983) findings on large urban commuter institutions, and research on financial aid (Voorhees, 1985; Nora, 1990). These consisted of 66 items. Another 24 items were included and are based on the ACT Student Opinion Survey which assesses college attributes. Finally, 14 background items were added as well. Altogether the SAFE questionnaire included 104 items. For the sake of simplicity all the items were categorized into one of the following eight groups: (1) background, (2) college attributes, (3) encouragement, (4) financial aid attributes, (5) academic integration, (6) social integration, (7) goal commitment, and (8) institutional commitment. In addition, two other items were added: intent to persist and persistence behavior.

Intent to Persist

One item was used to measure a student's intent to re-enroll at the respective institution in the fall 1993 semester: "It is likely that I will re-enroll at this institution this fall" (Intent). The item was derived from Pascarella and Terenzini (1983).

Persistence Behavior

Persistence, a dichotomous variable, was defined as the student's enrollment status in the fall 1993 semester (1=re-enrolled; 2=transferred; 3=dropped out). The variable was based on institutional transcripts consulted after the 12th class period as well as data from a higher education coordinating board tracking service. This tracking service provides enrollment data on all students attending public two or four year institutions within the state. Table 1 describes the persistence patterns.

DATA ANALYSIS

Exploratory Factor Analysis

Exploratory factor analysis (EFA) was used to analyze data from this study. Factor analysis was selected as the statistical technique of choice since its main objective is to represent a set of variables in terms of a smaller number of hypothetical variables. EFA is a commonly used and expedient way of ascertaining the minimum number of hypothetical factors that can account for the observed covariation, and as a means of exploring the data for possible data reduction (Kim and Mueller, 1978). In this study, PC-SAS (v. 6.04) was used to conduct the EFA. A principle components analysis with varimax rotation was employed to ascertain factor composition of constructs under consideration. Loehlin (1987) claims that varimax is a fast and robust procedure and that even when moderately correlated factors are expected, varimax is still used. Granted, with correlated factors it cannot be expected to provide a neat solution; however, it will often identify the main factors correctly. Eigen values of at least one and factor loadings of at least .40 were used as the criteria to determine how many factors should be retained.

The factor analyses indicated six factors accounting for 58.4% of the variance observed in the correlation matrix should be retained. These factors were similar in structure and item composition to those reported by Cabrera and associates (1993). The four remaining factors produced mixed results. Five goal commitment items loaded on two separate factors. Two academic integration items loaded on a separate factor. One goal commitment and one encouragement item loaded into one factor. Table 2 describes the constructs used in the models, lists the number of initial and final items used, reports the highest loading item, and gives the final reliability for the variables employed to

measure each construct. In addition, three other variables were added to the model that link to specific constructs. Academic performance as measured by GPA was listed with academic integration, choice of college at time of admission was listed with institutional commitment, and highest degree sought was listed with goal commitment.

Factor standardized scores were produced for each scale to provide a common metric across all the scales. Ultimately, of 61 initial retention questions that were factor analyzed, 14 were used to measure persistence. The three additional variables mentioned above were also added. Thus, a total of 17 variables were included in the retention model. Consistent with Mallette and Cabrera (1991) as well as work by Cabrera, Stampen, and Hansen (1990), the finance attitudes construct was dichotomized as satisfied (coded 1 for factor standardized scores below the mean) and dissatisfied (coded 2 for scores above the mean). Bivariate independent variables facilitate comparisons within the logistic regression model. The mean ratings of key constructs is shown in Figure 4.

Logistic Regression

Since the outcome variables in this study were binary (Persist vs. Drop or Persist vs. Transfer), two logistic regression equations were applied to test the effects of social integration (SI), academic integration (AI), GPA, encouragement (EN), institutional commitment (IC), choice, goal commitment (GC), highest degree, and financial attitudes (FA) on persistence decisions. As Hosmer and Lemeshow (1989) indicate, logit regression, unlike linear regression, does not assume a normal distribution for outcome variables. As a nonparametric technique, logistic regression has several advantages: it captures the probabilistic distribution embedded in dichotomized distributions (Hanushech and Jackson, 1977), is less sensitive to violations of the assumption of

multivariate normal distribution as compared to discriminant analysis, and is superior to discriminant analysis in many cases for both prediction and classification purposes (Press and Wilson, 1978).

The two logistic regression equations were assessed for significance through the models parameters and the scaled deviance (G^2). SAS CATMOD (i.e., Categorical Modeling) produces a maximum likelihood ratio by listing G^2 and degrees of freedom (*df*). When the ratio of G^2 to *df* is less than one this is generally seen as evidence of a good fit. Once the variables have been entered in the correct functional form and tested, the final step is to determine how effective the model is in describing the outcome variable. This goodness-of-fit assessment occurs when alternative models are tested by deleting individual significant variables from the model and comparing the scaled deviance G^2 statistic of each model with the G^2 of the alternative model (Fienberg, 1983). Changes in G^2 are then tested for significance, with those exhibiting the largest change considered contributing the most to the model.

RESULTS

Maximum likelihood ratios are displayed in Table 3 for the dropout vs. persister model and the transfer vs. persister model. Ratios of G^2 to *df* for each model are .48 and .51 respectively. Since these ratios are less than one, the models fit the data well. With the exception of social integration, dropout behavior and transfer behavior were explained by similar determinants.

Dropout vs. Persister Model

In explaining the difference between persisters and dropouts, four trends emerged: (1) social integration as measured by peer-group relations, (2) encouragement from

family to continue attending ASU, (3) academic performance (i.e., GPA), and (4) commitm nt to the institution. All were found to be statistically higher for persisters than for dropouts. The model indicated no significant differences in academic integration as measured by faculty concern items, choice of college at time of admission, commitment to achieving a college degree, highest degree aspirations, and satisfaction with financial aid programs at ASU. Table 4 describes how effective the models are in describing persistence decisions. This is done by deleting significant variables. All four variables significantly contributed to improvements on the fit of the model, but results indicated that encouragement from family contributed the most.

Transfer vs. Persister Model

Three of nine items were statistically significant in discriminating between persisters and transfers. Results indicated that persisters received more family encouragement, had higher GPAs, and were more committed to ASU than transfers. Neither social integration, academic integration, college choice, goal commitment, degree aspirations, nor attitudes toward financial aid programs at ASU explained decisions to transfer to other institutions. As seen in Table 4, results of the hierarchical exclusion of variables indicated that encouragement from family contributed the most to the model's fit followed by GPA, institutional commitment and social integration.

CONCLUSIONS AND IMPLICATIONS

Overall, findings do not lend support either to Tinto's proposition about the importance of distinguishing between different types of withdrawal behavior or to Mallette and Cabrera's (1991) exploratory study of withdrawal behavior. In their exploration they found that dropouts and transfers were different relative to persisters

with regard to GPA, institutional commitment, goal commitment, and finance attitudes. In the present study, voluntary dropout behavior and transfer behavior appear to be shaped by similar determinants, with the exception of social integration. These somewhat contradictory findings may be attributed to the differences in factor scales used in this study versus those employed by other research on the student retention model.

Nevertheless, results provide a practical guide to implementing student retention programs. Because of the important role played by family encouragement in this study, interventions such as a parents orientation would be just as effective for potential dropouts as it would be for transfer hopefuls. However, it may take more than a one-shot orientation to foster encouragement between parents and students. As Pascarella and Terenzini (1991) found, "Orientation interventions linked with stronger direct effects on persistence tend to be longer in duration and more comprehensive in scope (freshman seminar courses or orientation courses)" (p. 404). Perhaps some form of periodic and personalized communication from the institution to parents would facilitate greater parental support. Certainly, support from significant others should not be underestimated. Cabrera, Nora and Castadena (1993) found that such support significantly affected student GPA, social integration, institutional commitment, and goal commitment. Indeed, many others have found that encouragement from family and friends exerts significant effects on the persistence process (Nora, 1987; Nora, Attinasi, and Matonak, 1990; Nora and Rendon, 1990; Cabrera et al, 1990).

As to institutional commitment, it seems reasonable to expect that initiatives taken to get more students involved in the institution would not only increase commitment but would enhance GPA and social integration. Astin (1993) and Upcraft

et al (1990) specifically address how student involvement links to the above mentioned factors. Tinto (1975, 1987) posits that programs that encourage involvement in the social system of a college have been found to be most directly related to a person's institutional commitment. In the current study, programs that emphasize social integration are likely to reduce propensities to dropout. Based on this study, all students at this institution who are considering leaving (dropouts and transfers to other institutions) will be positively influenced to persist at the institution if programs focus on academic ability, institutional commitment, and encouragement from family and friends. In this competitive market of recruiting and retaining students, great dividends may be reaped by assessing the extent to which academic programs and other services meet the needs of the student. Just as important is developing methods to track the progress of students who transfer to other institutions. Statewide student tracking mechanisms provide this opportunity.

LIMITATIONS

Four main weaknesses in this study limit its application to other institutions. First, this study is limited in scope by its single-institution, single year focus. Replication of the investigation on samples from other institutions would be useful in testing the validity of an integrated model of student retention. Second, the study is limited by response bias. The respondent group over-represented the proportion of females, high school percentile ranking, freshmen cumulative GPA, and proportion of students who returned after one year. If it were possible to replicate this study among nonrespondents, it is likely a much different pattern would emerge. Third, confirmatory factor analysis (CFA) was not conducted to substantiate the dimensionality of constructs.

Without an EFA it is possible to misspecify the model under study, reduce explained variance, and reduce valid theoretical propositions (Hom and Griffeth, 1991; Thacker et al, 1989). This is especially true when one considers the arbitrary nature of construct definition and the fact that a construct is simply "some postulated attribute of people" (Cronbach and Meehl, 1955, p. 283). Fourth, the presence of a significant intercept in the logistic regression of both models tested coupled with a large G^2 suggests that other relevant variables in both models may not have been captured. Because of the above reasons, this study should be regarded as an exploratory analysis only.

REFERENCES

Astin, A. (1993). What Matters in College? Four Critical Years Revisited. San Francisco: Jossey-Bass Publishers.

Bean, J. (1985). Interaction Effects Based on Class Level in an Exploratory Model of College Student Dropout Syndrome. American Educational Research Journal, 22: 35-64.

Cabrera, A., Castaneda, M., Nora, A., and Hengstler, D. (1992). The Convergence Between Two Theories of College Persistence. Journal of Higher Education, 63: 143-164.

Cabrera, A., Nora, A., and Castaneda, M. (1993). College Persistence: Structural Equations Modeling Test of an Integrated Model of Student Retention. Journal of Higher Education, 64: 123-139.

Cabrera, A., Stampen, J., and Hansen, W. (1990). Exploring the Effects of Ability to Pay on Persistence in College. Review of Higher Education, 13: 303-336.

Cope, R., and Hannah, W. (1975). Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out and Transferring. New York: Wiley-Interscience Press.

Cronbach, L., and Meehl, P. (1955). Construct Validity in Psychological Tests. Psychological Bulletin, 52: 281-302.

Fienberg, S. (1983). The Analysis of Cross-Classified Categorical Data (rev. ed.). Cambridge: Massachusetts Institute of Technology.

Hanushech, E., and Jackson, J. (1977). Statistical Methods for Social Scientists. New York: Academic Press.

Hom, P., and Griffeth, R. (1991). Structural Equations Modeling Test of a Turnover Theory: Cross-Sectional and Longitudinal Analyses. Journal of Applied Psychology, 76: 350-366.

Hosmer, D., and Lemeshow, S. (1989). Applied Logistic Regression. New York: John Wiley and Sons.

Kim, J., and Mueller, C. (1978). Factor Analysis: Statistical Methods and Practical Issues. California: Sage Publications.

Levinson, D. (1978). The Seasons of a Man's Life. New York: Ballantine Books.

Loehlin, J. (1987). Latent Variable Models: an introduction to factor, path, and structural analysis. Hillsdale, NJ: Lawrence Erlbaum Publications.

Mallette, B., and Cabrera, A. (1991). Determinants of Withdrawal Behavior: An Exploratory Study. Research in Higher Education, 32: 179-194.

Nora, A. (1987). Determinants of Retention Among Chicano College Students: A Structural Model. Research in Higher Education, 26: 31-59.

Nora, A. (1990). Campus-based Aid Programs as Determinants of Retention Among Hispanic Community College Students. Journal of Higher Education, 61: 312-331.

Nora, A, Attinasi, L., and Matonak, A. (1990). Testing Qualitative Indicators of Precollege Factors in Tinto's Attrition Model: A Community College Student Population. Review of Higher Education, 13: 337-356.

Nora, A., and Rendon, L. (1990). Determinants of predisposition to transfer among community college students: a structural model. Research in Higher Education, 31(3): 235-255.

Pascarella, E., and Chapman, D. (1983). A Multiinstitutional Path Analytic Validation of Tinto's Model of College Withdrawal. American Educational Research Journal, 20: 87-102.

Pascarella, E., Duby, P., and Iverson, B. (1983). Student-Faculty Relationships and Freshman Year Intellectual and Personal Growth in a Nonresidential Setting. Journal of College Student Personnel, 24: 395-402.

Pascarella, E., and Terenzini, P. (1983). Predicting Voluntary Freshman Year Persistence/Withdrawal Behavior in a Residential University: A Path Analytic Validation of Tinto's Model. Journal of Educational Psychology, 25: 215-226.

Pascarella, E., and Terenzini, P. (1991). How College Affects Students. San Francisco: Jossey-Bass.

Press, S., and Wilson, W. (1978). Choosing between logistic regression and discriminant analysis. Journal of the American Statistical Association, 73(364): 699-705.

Thacker, J., Fields, M., and Tetrick, L. (1989). The Factor Structure of Union Commitment: An Application of Confirmatory Factor Analysis. Journal of Applied Psychology, 74: 228-232.

Tinto, V. (1975). Dropout from Higher Education: A Theoretical Synthesis of Recent Research. Review of Educational Research, 45: 89-125.

Tinto, V. (1987). Leaving College: Rethinking the Causes and Cures of Student Attrition. Chicago: University of Chicago Press.

Upcraft, M., Gardner, J., and Associates. (1990). The Freshman Year Experience. San Francisco: Jossey-Bass Publishers.

Voorhees, R. (1985). Student Finances and Campus-Based Financial Aid: A Structural Model Analysis of the Persistence of High Need Freshmen. Research in Higher Education, 22: 65-92.

APPENDICES

Angelo State University
Survey of ASU Freshmen Experiences

Dear Student:

We need your help! To assist us in providing the best possible service, we need to know more about your opinions. Ultimately, this survey is about why students stay or leave ASU. We would appreciate it if you would complete all sections of this confidential questionnaire. It requires less than 10 minutes of your time.

Please return it in the self-addressed, postage paid envelope by **August 12, 1993**, to insure that you are included in our random prize drawing for a **new AT&T Telephone and Answering Machine.**

Thank you.

Dr. Dave Allen, Director
Institutional Planning, Research and Assessment

Survey _____

SECTION I - OPINIONS

For the following items, please indicate the degree to which you agree or disagree with each statement. (CIRCLE ONE NUMBER FOR EACH LINE)

	Strongly Agree	*Agree*	*Neither Agree nor Disagree*	*Disagree*	*Strongly Disagree*
1. I am satisfied with my social life at ASU	1	2	3	4	5
2. I have found making friends at ASU more difficult than I expected	1	2	3	4	5
3. My education at ASU will help me to be admitted to other schools	1	2	3	4	5
4. I am satisfied with my academic experience	1	2	3	4	5
5. I am certain ASU is the right choice for me	1	2	3	4	5
6. My close friends encourage me to continue attending ASU	1	2	3	4	5
7. I feel I belong at ASU	1	2	3	4	5
8. Being a student at ASU is a pleasant experience	1	2	3	4	5
9. My education at ASU will help me secure future employment	1	2	3	4	5
10. It is likely that I will leave ASU to be closer to someone I care a great deal for	1	2	3	4	5
11. I am able to take the courses I want	1	2	3	4	5

	Strongly Agree	*Agree*	*Neither Agree nor Disagree*	*Disagree*	*Strongly Disagree*
12. My family encourages me to get a college degree	1	2	3	4	5
13. It has been easy for me to meet and make friends with other students at ASU	1	2	3	4	5
14. I am satisfied with the extent of my intellectual development since enrolling at ASU	1	2	3	4	5
15. Most of the faculty members I have had contact with are willing to spend time outside of class to discuss issues of interest and importance to students	1	2	3	4	5
16. Since coming to this university I have developed close personal relationships with other students	1	2	3	4	5
17. Most of the faculty members I have had contact with are genuinely outstanding or superior teachers	1	2	3	4	5
18. I am satisfied with the opportunity to meet and interact informally with faculty members, academic advisors and academic staff	1	2	3	4	5
19. The student friendships I have developed at ASU have had a positive influence on my intellectual growth and interest in ideas	1	2	3	4	5
20. I am satisfied with the amount of financial support (grants, loans, family, jobs) I have received while attending ASU	1	2	3	4	5
21. Most faculty, academic advisors and college administrators at ASU have values and attitudes similar to my own	1	2	3	4	5
My nonclassroom interactions with faculty, academic advisors and college administrators have had a positive influence on my:					
22. <u>intellectual growth and interest in ideas</u>	1	2	3	4	5
23. <u>personal growth, attitudes and aptitudes</u>	1	2	3	4	5
24. <u>career goals and aspirations</u>	1	2	3	4	5
25. My interpersonal relationships with other students have had a positive influence on my personal growth, attitudes and values	1	2	3	4	5
26. My family approves of my attending ASU	1	2	3	4	5

	Strongly Agree	*Agree*	*Neither Agree nor Disagree*	*Disagree*	*Strongly Disagree*
27. It is important for me to get a college degree	1	2	3	4	5
28. I have good study skills	1	2	3	4	5
29. I have discussed leaving ASU with my family or friends	1	2	3	4	5
30. My best friend(s) encourage me to get a college degree	1	2	3	4	5
31. I am certain of my career plans	1	2	3	4	5
32. I am satisfied with the prestige of ASU	1	2	3	4	5
33. It is important for me to finish my program of study.	1	2	3	4	5
34. I am confident I made the right decision in choosing to attend ASU	1	2	3	4	5
35. It is very important for me to graduate from ASU as opposed to some other school	1	2	3	4	5
36. Most students at ASU have values and attitudes similar to my own	1	2	3	4	5
37. My academic experience has had a positive influence on my intellectual growth and interest in ideas	1	2	3	4	5
38. It is difficult for me to transfer to another college, university or junior college	1	2	3	4	5
39. My education at ASU will help me get a better job than an education from other institutions	1	2	3	4	5
40. Most of the faculty members I have had contact with are genuinely interested in students	1	2	3	4	5
41. I am certain what I want to major in	1	2	3	4	5
42. My family encourages me to continue attending ASU	1	2	3	4	5
43. My close friends rate ASU as a quality institution	1	2	3	4	5
44. I have performed academically as well as I anticipated I would	1	2	3	4	5
45. I am satisfied with my course curriculum	1	2	3	4	5
46. My grades reflect my academic performance	1	2	3	4	5

BEST COPY AVAILABLE

	Strongly Agree	*Agree*	*Neither Agree nor Disagree*	*Disagree*	*Strongly Disagree*
47. Financial aid is important for my continuation at ASU	1	2	3	4	5
48. It has not been difficult to finance my college education	1	2	3	4	5
49. I have not experienced financial difficulty while at ASU	1	2	3	4	5
50. I have been satisfied with the financial aid programs at ASU	1	2	3	4	5
51. I am a serious student	1	2	3	4	5
52. I am in school because my parents persuaded me	1	2	3	4	5
53. I am strongly committed to achieving a college degree	1	2	3	4	5
54. It would not take much for me to abandon my college degree program	1	2	3	4	5
55. Depending on how things go, it is quite likely that I may have to revise my goal of getting a college degree	1	2	3	4	5
56. I think getting a college degree is a good goal to shoot for	1	2	3	4	5
57. I set goals for myself and achieve them	1	2	3	4	5
58. I desire to be with a friend(s) at another college	1	2	3	4	5
59. There has been at least one ASU employee (i.e., faculty or staff) who really cares about me	1	2	3	4	5
60. I have no idea at all what I want to major in	1	2	3	4	5
61. When I commit to a goal I usually achieve it	1	2	3	4	5
62. It is likely that I will re-enroll at ASU this fall	1	2	3	4	5

63. If you disagree with the above statement, have you decided <u>not</u> to return to ASU this fall? 1) yes 2) no

64. If yes, in what month did you decide? _____

65. Are you planning on enrolling in another college or university this fall? (CIRCLE ONLY ONE)
1) yes, in-state 2) yes, out of state 3) no

66. If you plan to transfer to another college, what degree program will you pursue? _____

SECTION II - COLLEGE ATTRIBUTES

Listed below are various aspects of ASU. Please indicate your level of satisfaction:

	Very Satisfied	*Satisfied*	*Neutral*	*Dissatisfied*	*Very Dissatisfied*
1. My overall experience at ASU	1	2	3	4	5
2. Residence halls in general	1	2	3	4	5
3. Learning environment	1	2	3	4	5
4. ASU meal plan	1	2	3	4	5
5. Courses	1	2	3	4	5
6. Faculty	1	2	3	4	5
7. Staff	1	2	3	4	5
8. Counselors	1	2	3	4	5
9. Academic advisors	1	2	3	4	5
10. Living conditions in residence halls	1	2	3	4	5
11. Administration of ASU	1	2	3	4	5
12. Knowledge gained from ASU	1	2	3	4	5
13. Job opportunities on campus	1	2	3	4	5
14. Job opportunities off campus	1	2	3	4	5
15. Residence halls rules and regulations	1	2	3	4	5
16. Classrooms	1	2	3	4	5
17. General condition of buildings and grounds	1	2	3	4	5
18. Availability of courses you want at times you can take them	1	2	3	4	5
19. Admissions staff	1	2	3	4	5
20. Financial aid availability	1	2	3	4	5
21. General registration procedures	1	2	3	4	5
22. Scholarship availability	1	2	3	4	5
23. Concern for you as an individual	1	2	3	4	5
24. This college in general	1	2	3	4	5

SECTION III - BACKGROUND INFORMATION

1. Sex: a) male b) female

2. Race: a) White b) Black c) Hispanic d) Asian e) Indian f) Other

3. What is your zip code of permanent address? _____

4. What is your best estimate of your parents' total income last year? Consider income from all sources before taxes. (CIRCLE ONLY ONE)

   A. Less than $14,999
   B. $15,000 - 24,999
   C. $25,000 - 34,999
   D. $35,000 - 49,999
   E. $50,000 - 74,999
   F. $75,000 or more

5. What is the highest level of formal education obtained by your parents? (CIRCLE ONLY ONE)

Father's formal education:	Mother's formal education:
A. Some high school or less	A. Some high school or less
B. High school graduate (or GED)	B. High school graduate (or GED)
C. Some college	C. Some college
D. College degree	D. College degree
E. Some graduate education	E. Some graduate education
F. Graduate degree	F. Graduate degree

6. During your freshman year, how many hours per week did you typically work? _____

7. How many children or relatives are living with you for whom you are responsible? _____

8. How many campus organizations did you belong to your freshman year? _____

9. About how many classes did you miss during the spring semester due to reasons other than medical? _____

10. If you commuted to campus, how long did it take you? _____ (minutes)

11. During the spring semester, where did you live? (CIRCLE ONLY ONE)

    a. Home with parents/family b. Apartment c. Residence Hall d. Other

12. At the time you applied for admission, ASU was your _____ choice. (1st, 2nd, 3rd, etc.)

BEST COPY AVAILABLE

13. What is the highest academic degree that you intend to obtain? (CIRCLE ONLY ONE)

a) None
b) Vocational Certificate
c) Associate (A.A. or equivalent)
d) Bachelor's degree (BA, BS, etc.)
e) Master's degree (MA, MS, etc.)
f) Ph.D or Ed.D.
g) Professional degree (MD, JD, etc.)
h) Other (Specify) _____

14. On the average, how many hours per week did you spend studying your freshman year? (CIRCLE ONLY ONE)

a) 0 - 4.9
b) 5 - 9.9
c) 10 - 14.9
d) 15 - 19.9
e) 20 - 24.9
f) 25 - 29.9
g) 30 - 34.9
h) 35 - 39.9
i) 40 or more

SECTION IV - COMMENTS

A. What services can ASU provide to help students continue their education at this university?

Thank you again for your cooperation!

Please Return in the postage paid envelope by August 12, 1993 to:

Dr. David F. Allen
Director, Institutional Research
Angelo State University
P.O. Box 11008, ASU Station
San Angelo, Texas 76909
(915) 942-2259

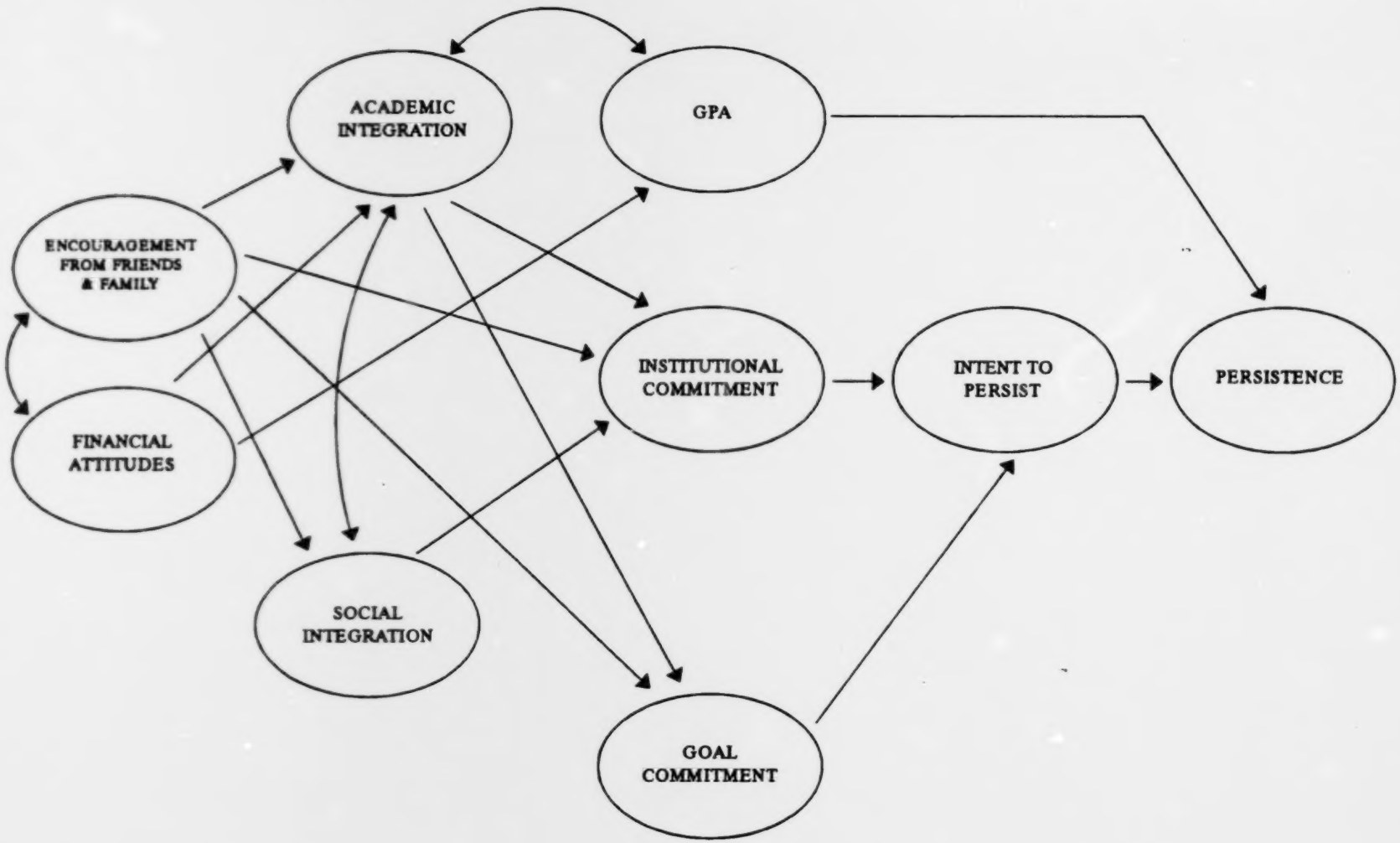
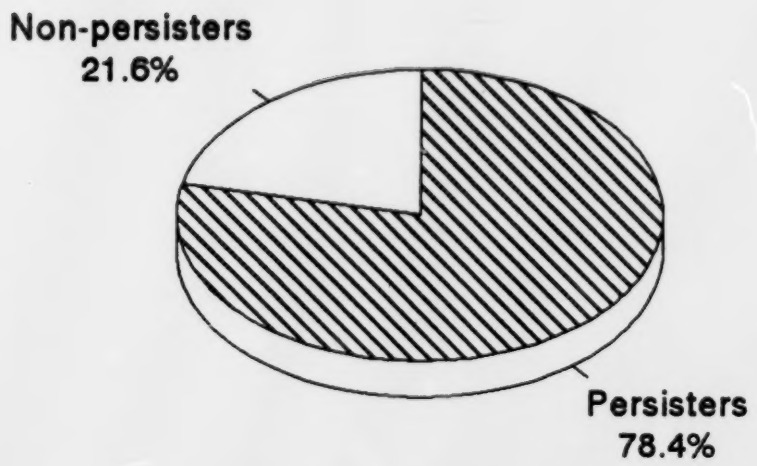


FIG. 1. Cabrera et al's Integrated Retention Model

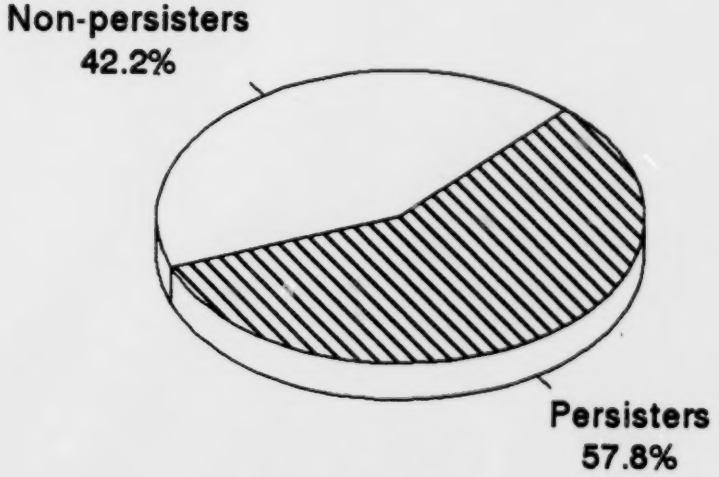
Angelo State University
Survey of Fall 1992 Freshmen

Respondents



N = 343

Non-respondents



N = 481

FIG. 2. Profile of Survey Respondents
(Population = 824)

Angelo State University
Survey of Fall 1992 Freshmen

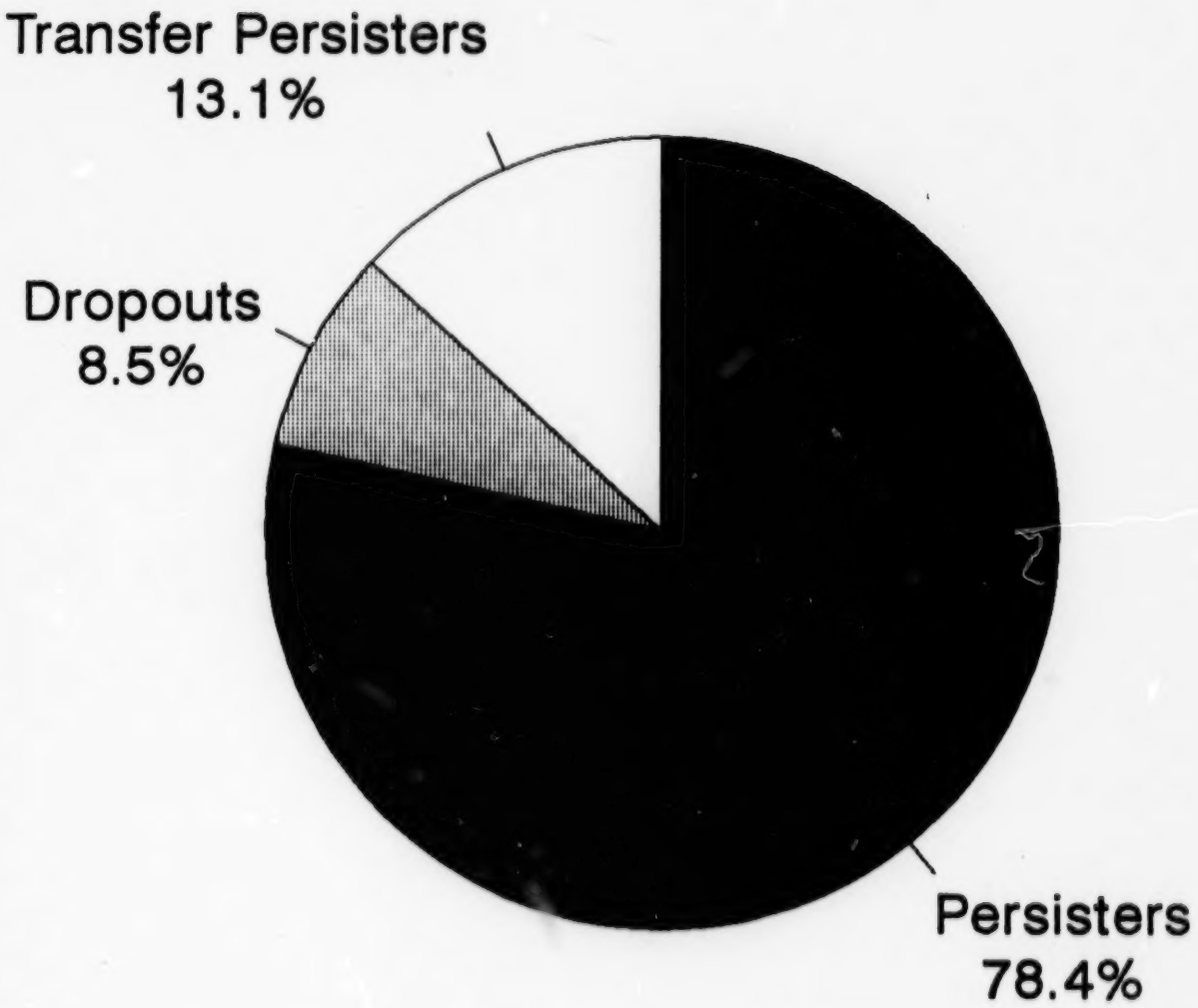
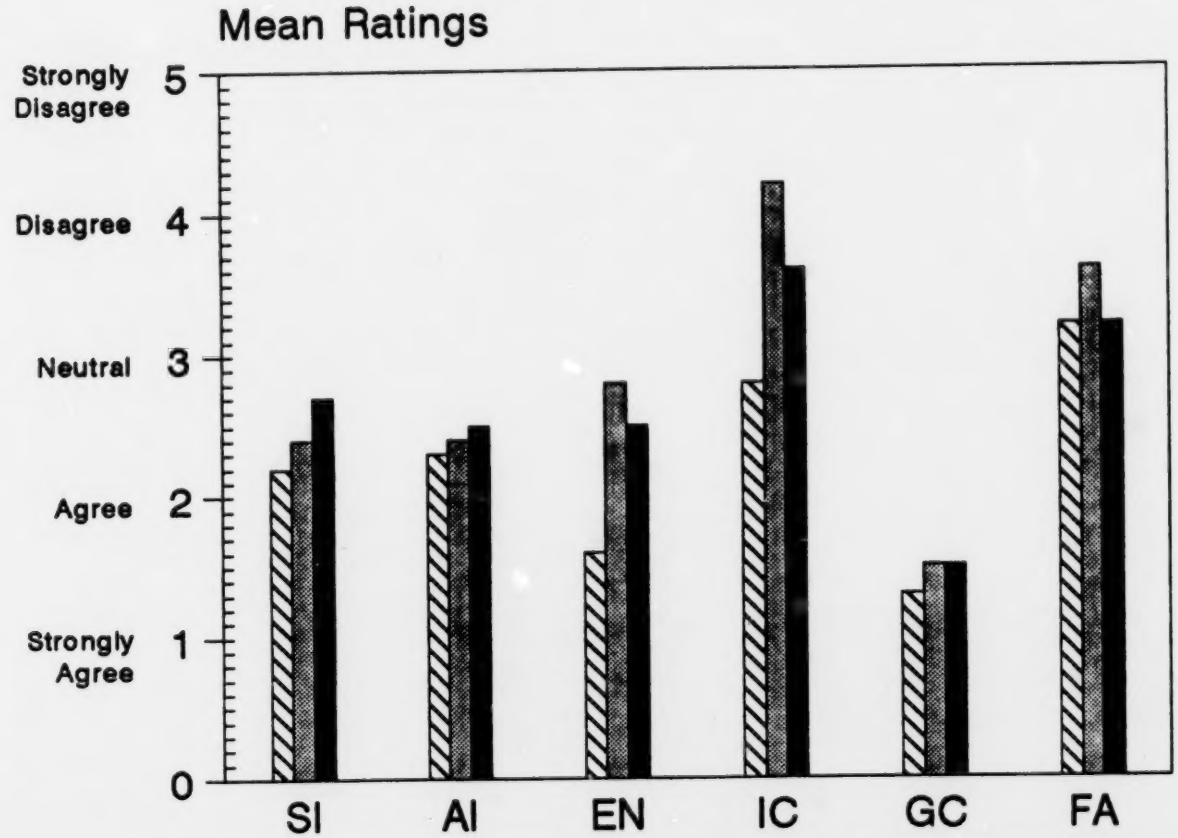
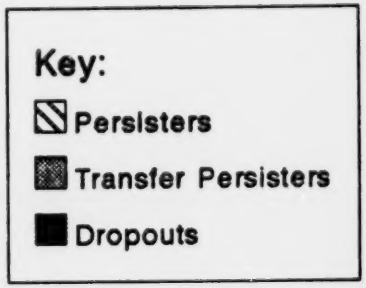


FIG. 3. Profile of Student Decisions
N = 343

Angelo State University
Survey of Fall 1992 Freshmen





	SI	AI	EN	IC	GC	FA
Persisters	2.2	2.3	1.6	2.8	1.3	3.2
Transfer Persisters	2.4	2.4	2.8	4.2	1.5	3.6
Dropouts	2.7	2.5	2.5	3.6	1.5	3.2

FIG. 4. Mean Ratings of Key Constructs

TABLE 1. Angelo State University Survey of Fall 1992 Freshmen
Survey Respondents (N = 343)
Persistence Patterns by College

Type	Number	Percent
ASU Persisters	269	78.4%
Transferred and Persisted	45	13.1%
Transferred and Dropped	4	1.2%
Dropped	25	7.3%
TOTAL	343	100.0%

TRANSFER PERSISTERS (N=45)		
Alvin Community College	1	2.2%
Austin Community College	2	4.4%
Blinn College	1	2.2%
Cisco Junior College	2	4.4%
Howard College at Big Spring	5	11.2%
Midwestern State University	1	2.2%
Palo Alto College	1	2.2%
Sam Houston State University	1	2.2%
South Plains College	2	4.4%
Southwest Texas Junior College	1	2.2%
Southwest Texas State University	5	11.2%
Tarleton State University	1	2.2%
Tarrant County Junior College District–South Campus	1	2.2%
Texas A&M University	1	2.2%
Texas Tech	7	15.6%
The University of Texas at Austin	3	6.8%
The University of Texas at El Paso	2	4.4%
The University of Texas at San Antonio	3	6.8%
The University of Texas of the Permian Basin	1	2.2%
University of North Texas	2	4.4%
West Texas State University	1	2.2%
Western Texas College	1	2.2%
	45	100.0%

TRANSFER DROPOUTS (N=4)		
Austin Community College	2	40.0%
Bee County College	1	20.0%
Southwest Texas Junior College	1	20.0%
	4	100.0%

TABLE 2. Angelo State University Survey of Fall 1992 Freshmen Construct Description

Construct	ITEMS Initial	ITEMS Final	Top Item	Final Reliability
Social Integration (SI)	11	4	Q16. Since coming to this university I have developed close personal relationships other students.	.85
Academic Integration (AI)	12	2	Q40. Most of the faculty members I have contact with are genuinely interested in students.	.67
GPA		1		
Encouragement (EN)	6	2	Q26. My family approves of my attending ASU.	.64
Institutional Commitment (IC)	16	2	Q29. I have discussed leaving ASU with my family or friends.	.76
Choice		1		
Goal Commitment (GC)	11	2	Q53. I am strongly commited to achieving a college degree.	.76
Highest Degree		1		
Financial Aid Attitudes (FATT)	5	2	Q20. I am satisfied with the amount of financial support (grants, loans, family, jobs) I have received while attending ASU.	.81

TABLE 3. Angelo State University Survey of Fall 1992 Freshmen

Key Factors Influencing Persistence

Factors	Dropout vs. Persister Beta	Transfer vs. Persister Beta
Social Integration (Q2, Q13, Q16, Q25)	− .43 *	− .12
Encouragement (Q26, Q42)	−1.04 ***	−1.31 ***
Academic Integration (Q22, Q40)	.14	− .22
GPA	−1.27 **	− .91 *
Institutional Commitment (Q29, Q35)	− .61 *	−1.39 ***
Choice	.73	.14
Goal Commitment (Q53, Q56)	.17	.42
Highest Degree	− .27	.27
Finance Attitudes [1 vs 2] (Q20, Q50)	.14	.27
Constant	22.20 ***	28.90 ***
Maximum Likelihood Ratio	$G^2 = 138.90$ df = 288	$G^2 = 156.38$ df = 304

* $p < .05$
** $p < .01$
*** $p < .001$

Note: Negative numbers associate with persisters

TABLE 4. Angelo State University Survey of Fall 1992 Freshmen
ASSESSMENT OF MODEL FIT

Dropout vs. Persister Model

Model	df	G^2	Change in G^2	Improvement of Fit p-value
1. Saturated Model	288	138.90		
2. Deleting Encouragement	289	162.54	$G^2_2 - G^2_1 = 23.64$	.0000
3. Deleting GPA	289	151.89	$G^2_3 - G^2_1 = 12.99$	.0003
4. Deleting Institutional Commitment	289	144.49	$G^2_4 - G^2_1 = 5.59$	.0018
5. Deleting Social Integration	289	142.96	$G^2_5 - G^2_1 = 4.06$	.0439

Transfer vs. Persister Model

Model	df	G^2	Change in G^2	Improvement of Fit p-value
1. Saturated Model	304	156.38		
2. Deleting Encouragement	305	201.69	$G^2_2 - G^2_1 = 45.31$	.0000
3. Deleting Institutional Commitment	305	196.63	$G^2_3 - G^2_1 = 40.25$	.0000
4. Deleting GPA	305	163.41	$G^2_4 - G^2_1 = 7.03$	.008